

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Amended) A membrane assembly comprising:
 - (a) a core;
 - (b) a membrane element surrounding said core;
 - (c) a sheath which surrounds said membrane element and said core, wherein said sheath comprises polymer films wound around said membrane element and said core and which, at least partially, overlap one another and have been fused to one another in the area of overlap.
2. (Original) A membrane element as claimed in claim 1, wherein the polymer film (10) is a polypropylene filmed or polyester film.
3. (Previously Amended) A membrane element as claimed in claim 1, wherein the polymer film (10) has at least one functionalized surface.
4. (Previously Amended) A membrane element as claimed in claim 1, wherein the polymer film (10) is a coextruded film.
5. (Original) A membrane element as claimed in claim 4, wherein the coextruded film (10) is composed of a base layer and of at least one outer layer, where the melting point of the outer layer polymer is lower than that of the base layer polymer.
6. (Original) A membrane element as claimed in claim 5, wherein the melting point of the outer polymer layer is from 70 to 130°C.
7. (Withdrawn) A process for producing a membrane element, providing a core, having a membrane element surrounding said core,(9) with a sheath by winding a polymer film (10) around said membrane element and said core (9), where individual layers (11) of the polymer film (10) at least partially overlap one another and supplying energy to fuse the polymer films to one another in the area of overlap.

8. (Withdrawn) The process as claimed in claim 7, wherein said winding comprises winding the polymer film (10) as a layer spirally around the membrane core (9), where the individual laps of the layer (11a) overlap to some extent.

9. (Withdrawn) The process as claimed in claim 7, wherein said winding further comprises winding the polymer film (10) as a layer spirally around the membrane core (9) and laying the individual laps of the layer (11b) alongside one another, without overlapping each other, and form a first layer, and further comprising winding at least one further layer of polymer film (10) layers lying alongside one another over the first layer, and then fusing this to the layer lying thereunder.

10. (Withdrawn) The process as claimed in claim 7, wherein the thickness of the sheath is from 0.3 to 28 mm.

11. (Withdrawn) The process as claimed in claim 8, wherein the width of the layer (10) is from 10 to 100 mm.

12. (Withdrawn) The process as claimed in claim 8, wherein the width of the layer (10) is from 100 to 2000 mm.

13. (Withdrawn) The process as claimed in claim 11, wherein the layer (10) is wound with a web tension of from 1 to 500N.

14. (Withdrawn) The process as claimed in claim 12, wherein the layer (10) is wound with a web tension of from 100 to 1000N.

15. (Previously Added) A membrane assembly according to claim 1, wherein said membrane element further comprises at least one spirally wound element.

16. (Previously Added) A membrane assembly according to claim 15, wherein said at least one spirally wound element further comprises at least one doubled membrane layer.

17. (Previously Added) A membrane assembly according to claim 16, wherein said at least one doubled membrane layer comprises two membranes.

18. (Previously Added) A membrane assembly according to claim 17, wherein said membranes each comprise an active surface.

19. (Previously Added) A membrane assembly according to claim 18, wherein said membranes are positioned relative to one another, such that the active surface of each membrane faces away from the other membrane.

20. (Previously Added) A membrane assembly according to claim 18, wherein said membranes are fused together on three sides and form a membrane pocket.

21. (Previously Added) A membrane assembly comprising:

(a) a core comprising a cylindrical pipe having perforations or holes therein;

(b) a membrane element surrounding said core and comprising spirally wound elements,

said spirally wound elements comprising one or more doubled layers of membrane,

said doubled layers bonded or fused to one another on three sides to form a membrane pocket having an open side;

said open side of said membrane pocket bonded to said pipe in the region of said perforations or holes;

(c) a spacer sheet comprising a polypropylene net spirally wound, together with said membrane pockets, around said core

(d) at least one polymer film comprising at least one functionalized surface;

(e) a sheath, having a thickness of 0.3 to 28 mm, surrounding said membrane element and said core, said sheath formed from said polymer film wound spirally around said membrane element and said core such that said polymer film at least partially overlaps itself and such that said polymer film is fused together in the region of said overlap.

22. (Previously Added) A membrane assembly according to claim 21, wherein said polymer film is a polypropylene film or polyester film.

23. (Previously Added) A membrane assembly according to claim 22, wherein said polymer film is a coextruded film.

24. (Previously Added) A membrane assembly according to claim 23, wherein said coextruded film comprises a base layer and at least one outer layer, wherein the melting point of the outer layer is lower than that of the base layer polymer.

25. (Previously Added) A membrane assembly according to claim 24, wherein the melting point of the outer layer polymer is from 70 to 130°C.

26. (Previously Added) A membrane assembly comprising:

(a) a core;

(b) a membrane element surrounding said core;

(c) a sheath, having a thickness of 0.3 to 28 mm, which surrounds said membrane element and said core, wherein said sheath comprises polymer films wound around said membrane element and said core and which, at least partially, overlap one another and have been fused to one another in the area of overlap.

27. (New) A membrane assembly comprising:

(a) a core;

(b) a spiral-wound membrane element surrounding the core;

(c) a sheath which surrounds the membrane element and the core, wherein the sheath comprises a polymer film wound around the membrane element and the core at an oblique angle relative to a longitudinal axis of the membrane element and which, at least partially, overlaps itself and is fused to itself in the area of overlap.

28. (New) A membrane assembly according to claim 27, wherein the sheath comprises a plurality of layers of the polymer film wound spirally and helically around the membrane element and core.

29. (New) A membrane assembly according to claim 28, wherein the sheath comprises up to 400 layers of the polymer film.

30. (New) A membrane assembly according to claim 27, wherein the sheath at least partially overlaps itself and is fused to itself at an oblique angle relative to the longitudinal axis of the membrane element.

31. (New) A membrane assembly according to claim 27, wherein a width of the polymer film is substantially less than a width of the membrane element as measured along the longitudinal axis of the membrane element.

32. (New) A membrane assembly for filtration of compositions comprising concentrated acids and alkalis at temperatures up to 100°C comprising:

(a) a core;

(b) a spiral-wound membrane element surrounding the core;

(c) a sheath which surrounds the membrane element and the core, wherein the sheath comprises a polymer film wound helically around the membrane element and the core and which, at least partially, helically overlaps itself and is fused to itself in the area of overlap.

33. (New) A membrane assembly comprising:

(a) a core;

(b) a spiral-wound membrane element surrounding the core;

(c) a sheath which surrounds the membrane element and the core, wherein the sheath comprises a polymer film wound helically around the membrane element and the core

and which, at least partially, helically overlaps itself and is fused to itself in the area of overlap and wherein portions of the sheath do not detach on contact with solvents.